SUBJECT DETAILS AND SYLLABUS
2019/2020. II. SEMESTER

Subject Name	***Design of Microelectronic Systems***
Subject code	***IVB275ANVM***
Classes per week (L/P/Lab)	***2,0,2***
Number of Credits	***4***
Division/type	***Electrical Engineering (BSc)/Embedded sys spec.***
Program	***full-time***
Requirement	***midterm grade***
Semester	***6th / 2019-2020. spring***
Preliminary requirements	***-***
Organization name	***Department of Automation***
Responsible Lecturer(s)	***Zsolt Kisander, Csaba Brenner***

GOAL OF INSTRUCTION

Design of Microelectronic Systems gives an introduction to computer-aided PCB design. In this subject the students can choose a preferred CAD system (Eagle, Altium, KiCAD) and solve differenct electronic design problems with it.

SUBJECT CONTENT

The following topics will be discussed during the lectures:

- basic routing techniques
- power distributing networks on a PCB
- separate power networks for analog and digital circuits
- routing signals, differential signals and buses
- EMC considerations in routing and component placing
- component selection
- designing custom and standard compliant component footprints

EXAMINATION AND EVALUATION SYSTEM

The final grade is the average of multiple PCB design homeworks.

LITERATURE

- The Art of Electronics 3rd Edition, Horowitz and Hill, 2015., ISBN-13: 9780521809269
- Basic Linear Design, H. Zumbahlen, 2007., ISBN-10: 0916550281

SCHEDULE

	STUDY PERIOD, STUDY WEEKS															EXAM PERIOD				
2019/2020. II. SEMESTER	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	1.	2.	3.	4.	5.
Lecture number																				
Practice/Labs number																				
Midterm test																				
Homework **publishing**		x	x	x	x	x	x	x	x		x	x								
Homework **submitting**			x	x	x	x	x	x	x		x	x	x							
Signature/Semester rating																				
Exam																				

2020. ……

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responsible lecturer